



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER POLLUTION CONTROL PROGRAM

(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)

**FORM I - PERMIT APPLICATION FOR CONSTRUCTION AND
OPERATION OF WASTEWATER IRRIGATION SYSTEMS**

FOR AGENCY USE ONLY

PERMIT NUMBER

MO-

DATE RECEIVED

INSTRUCTIONS: The following forms must be submitted with Form I: **FORM B** for domestic wastewater. **Submit FORMS E and G** for land disturbance permit if construction areas total one acre or more.

1.00 FACILITY INFORMATION

1.10 Facility Name

1.20 Application for: ☐ Construction Permit (attach Engineering report, Plans and Specifications per 10 CSR 20-8)
☐ Operating Permit (if no construction permit, attach engineering documents)
Date Irrigation System Began Operation: _____
☐ Operating Permit Renewal

1.30 Type of wastewater to be irrigated: ☐ Domestic ☐ Municipal ☐ State/National Park ☐ Seasonal business
☐ Municipal with Pretreatment Program or Significant Industrial Users ☐ Other (explain) _____
SIC Codes (list all that apply, in order of importance) _____

1.40 Months when the business or enterprise will operate or generate wastewater:
☐ 12 months per year ☐ Part of year (list Months): _____

1.50 This system is designed for:
☐ No-discharge ☐ Partial irrigation when feasible and discharge rest of time.
☐ Irrigation during recreation season (April - October) and discharge during November - March.
☐ Other (explain) _____

1.60 List the Facility outfalls which will be applicable to the irrigation system from outfalls listed on Form B.

Outfall Nos. _____

2.00 STORAGE BASINS

2.10 Number of storage basins: _____ Type of basin: ☐ Steel ☐ Concrete ☐ Fiberglass ☐ Earthen ☐ Earthen with membrane liner

2.20 Storage basin dimensions at inside top of berm (feet): Report freeboard as feet from top of berm to emergency spillway or overflow pipe.
(Complete Attachment A: Profile Sketch)

Basin #1: Length _____ Width _____ Depth _____ Freeboard _____ Berm Width _____ % Slope _____

Basin #2: Length _____ Width _____ Depth _____ Freeboard _____ Berm Width _____ % Slope _____

2.30 Storage Basin operating levels (report as feet below emergency overflow level)

Basin #1: Maximum water level _____ ft. Minimum operating water level _____ ft.

Basin #2: Maximum water level _____ ft. Minimum operating water level _____ ft.

2.40 Depth of sludge in lagoons and storage basins _____ ft.

Total sludge stored _____ dry tons _____ cu. ft.

3.00 LAND APPLICATION SYSTEM

3.10 Number of irrigation sites _____ Total Acres _____ Maximum % field slopes _____

Location: _____ 1/4 _____ 1/4 _____ 1/4 _____ Sec. _____ T _____ R _____ County _____ Acres

Location: _____ 1/4 _____ 1/4 _____ 1/4 _____ Sec. _____ T _____ R _____ County _____ Acres

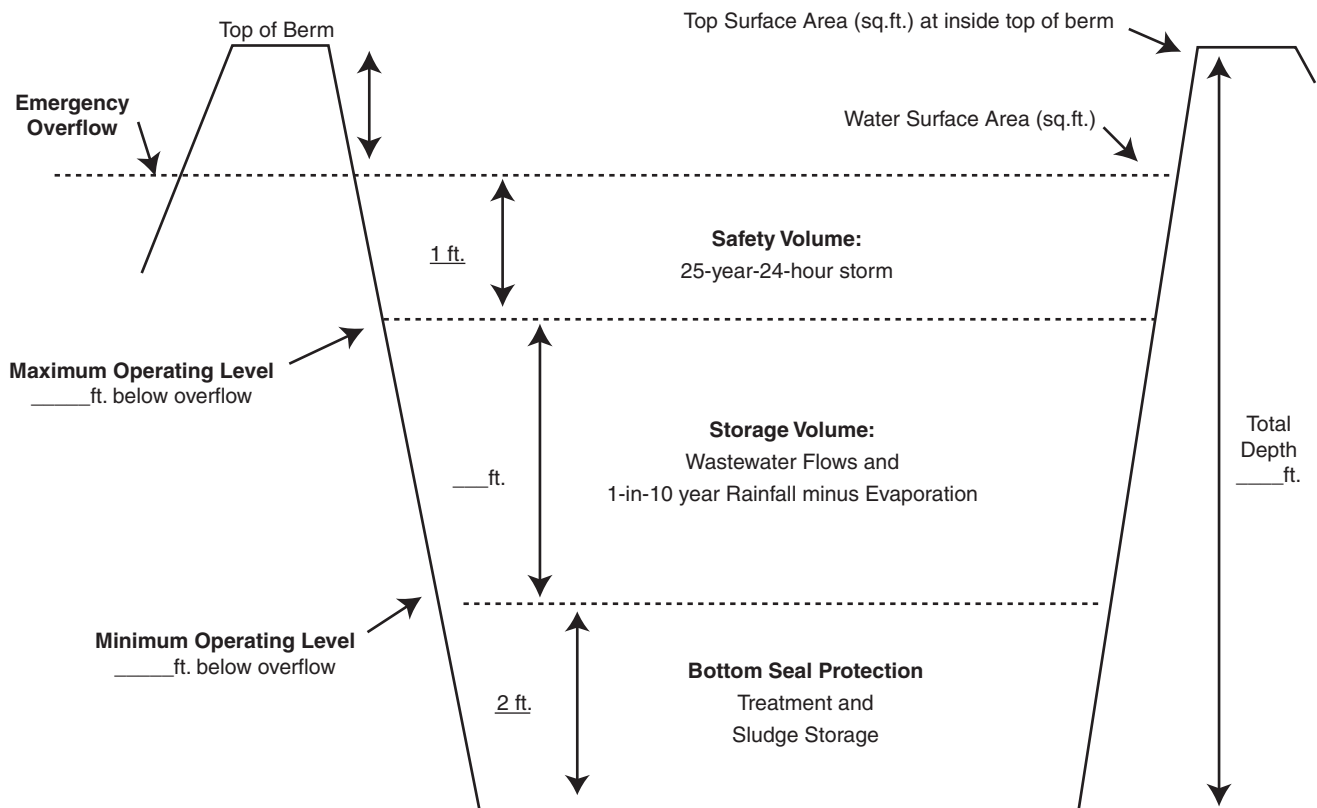
Attach extra sheets as necessary.

3.11	Type of vegetation: <input type="checkbox"/> Grass hay <input type="checkbox"/> Pasture <input type="checkbox"/> Timber <input type="checkbox"/> Row crops <input type="checkbox"/> Other (describe) _____								
3.20	Wastewater flow (dry weather) gallons/day: Average annual: _____ Seasonal _____ Off-season _____ Months of seasonal flow: _____ Human Population Equivalent: _____								
3.21	Land Application rate per acre (design flow including 1 in 10 year storm water flows): Design: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week Actual: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week Total Irrigation per year (gallons): _____ Design _____ Actual _____ Actual months used for Irrigation (circle): Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
3.22	Land Application Rate is based on: <input type="checkbox"/> Nutrient Management Plan (N&P) <input type="checkbox"/> Hydraulic Loading <input type="checkbox"/> Other (describe) _____								
3.30	Equipment type: <input type="checkbox"/> Sprinklers <input type="checkbox"/> Gated pipe <input type="checkbox"/> Center pivot <input type="checkbox"/> Traveling gun <input type="checkbox"/> Other (describe) _____ Equipment Flow Capacity: _____ Gallons per hour _____ Total hours of operation per year								
3.40	Public Access Restrictions for irrigation sites: <input type="checkbox"/> Site is Fenced <input type="checkbox"/> Wastewater disinfection prior to irrigation <input type="checkbox"/> Other (describe): _____								
3.50	Separation distance (in feet) from the outside edge of the wetted irrigation area to down gradient features: _____ Permanent flowing stream _____ Losing Stream _____ Intermittent (wet weather) stream _____ Lake or pond _____ Property boundary _____ Dwellings _____ Water supply well _____ Other (describe) _____								
3.60	SOILS INFORMATION: Use information from the County Soil Survey, NRCS, or professional soil scientist. Soil Series Name _____ Depth to bedrock _____ Feet Depth to water table _____ Feet Soil Infiltration rate in inches/hour (in/hr) for most restrictive layer within the following soil depth ranges: _____ In/hr for 0-12 inch soil depth _____ In/hr for 12-24 inch soil depth _____ In/hr for 24-60 inch soil depth								
3.70	Include a recent Geologic Report by the Department's Geological Survey and Resource Assessment Division with your construction permit.								
3.80	Attach a current copy of the Operation and Maintenance (O&M) Plan for the irrigation system. Date of O&M Plan: _____								
3.81	Attach a site map showing topography, storage basins, irrigation sites, property boundary, streams, wells, roads, dwellings and other pertinent features.								
3.82	Attach a facility sketch showing treatment units, storage basins, pipelines, irrigation equipment, application sites and other features.								
4.00 CERTIFICATION I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment.									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;">CONSULTING ENGINEER - Name, Official Title and Engineering Firm (TYPE OR PRINT)</td> <td style="width: 50%; vertical-align: top;">TELEPHONE NUMBER (area code and number)</td> </tr> <tr> <td style="vertical-align: top;">SIGNATURE</td> <td style="vertical-align: top;">DATE SIGNED</td> </tr> <tr> <td style="vertical-align: top;">OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title (TYPE OR PRINT)</td> <td style="vertical-align: top;">TELEPHONE NUMBER (area code and number)</td> </tr> <tr> <td style="vertical-align: top;">SIGNATURE</td> <td style="vertical-align: top;">DATE SIGNED</td> </tr> </table>		CONSULTING ENGINEER - Name, Official Title and Engineering Firm (TYPE OR PRINT)	TELEPHONE NUMBER (area code and number)	SIGNATURE	DATE SIGNED	OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title (TYPE OR PRINT)	TELEPHONE NUMBER (area code and number)	SIGNATURE	DATE SIGNED
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ATTACHMENT A

(To be included with Form I)

Lagoon or Storage Basin PROFILE SKETCH



DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).

- Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
- Maximum Operating Level is at bottom of the safety volume (minimum of 2 feet below top of berm).
- Minimum Operating Level is 2 feet above bottom of lagoon for seal protection per 10 CSR 20-8.
The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- Total Depth is from top of berm to bottom of basin including freeboard.